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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/642,233 | 08/18/2003 | June-Seo Lee | P56843 | 2987 |
| 7590 06/03/2005 | | | EXAMINER | |
| Robert E. Bushnell Suite 300 1522 K Street, N.W. Washington, DC 20005 | | | LY, NGHII H | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2686 | |

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,233

Applicant(s)

LEE, JUNE-SEO

Examiner

Nghi H. Ly

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/18/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>08/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 6, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somani et al (US 6,718,173) in view of Yamane (US 5,842,131).

Regarding claim 1, Somani teaches a wireless network system capable of tracking a location of a mobile station (see Abstract) comprising: a visitor location register in which location information relating to a wireless network location of a mobile station is stored (see column 1, lines 11-25 and column 1, lines 64-67), and a base station controller storing location information relating to a wireless network location of a mobile station in said visitor location register when the mobile station registers its location with said wireless network (see column 1, lines 35-52, "BSC" and column 1, lines 64-67), and confirming a location of the mobile station and updating the location information stored in said visitor location register when the mobile station keeps up an idle state during a certain period (column 1, lines 35-52, see "a predetermined time period has elapsed") and (see column 4, lines 59-64).

Somani does not specifically disclose confirming a location of the mobile station by dummy paging.

Yamane teaches confirming a location of the mobile station by dummy paging (see column 3, lines 36-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Yamane into the system of Somani in order to provide a system for confirming position data of moving terminal (see Yamane, column 1, lines 45-48).

Regarding claim 2, Somani teaches a private wireless network system capable of tracking a location of a mobile station (see Abstract) comprising: at least one repeater dispersedly installed in sector zones of a private base transceiver station; a visitor location register in which location information relating to a private wireless network location of a mobile station is stored (see column 1, lines 11-25 and column 1, lines 64-67, see "VLR"), the location information including at least one of a private base transceiver station number, a sector number and a repeater number; and a private base station controller storing location information relating to a private wireless network location of a mobile station in said visitor location register when the mobile station registers its location with said private wireless network (see column 1, lines 35-52, "BSC" and see column 1, lines 11-25 and column 1, lines 64-67), and confirming a location of the mobile station and updating the location information stored in said visitor location register when the mobile station keeps up an idle state during a certain period (column 1, lines 35-52, see "a predetermined time period has elapsed") and (see column 4, lines 59-64).

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Somani does not specifically disclose confirming a location of the mobile station by dummy paging.

Yamane teaches confirming a location of the mobile station by dummy paging (see column 3, lines 36-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Yamane into the system of Somani in order to provide a system for confirming position data of moving terminal (see Yamane, column 1, lines 45-48).

Regarding claim 4, claim 4 is rejected with a similar reason as set forth in claim 1 above.

Regarding claim 6, claim 6 is rejected with a similar reason as set forth in claim 2 above.

Regarding claim 8, claim 8 is rejected with a similar reason as set forth in claim 2 above.

Regarding claim 11, Somani teaches comprising of confirming a location and state of a mobile station and updating its location information of said visitor location register when the relevant mobile station keeps up an idle state during a certain period, and then transmitting the updated location information to said server (see column 1, lines 11-25 and column 1, lines 64-67, see "VLR").

Somani does not specifically disclose the method further comprising of confirming a location and state of a mobile station by dummy paging.

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Yamane teaches the method further comprising of confirming a location and state of a mobile station by dummy paging (see column 3, lines 36-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Yamane into the system of Somani in order to provide a system for confirming position data of moving terminal (see Yamane, column 1, lines 45-48).

3. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somani et al (US 6,718,173) in view of Yamane (US 5,842,131) and further in view of Stephens (US 6,256,503).

Regarding claim 3, Somani teaches a private wireless network system capable of tracking a location of a mobile station (see Abstract) comprising: at least one repeater dispersedly installed in sector zones of a private base transceiver station; a visitor location register in which location information relating to a private wireless network location of a mobile station is stored (see column 1, lines 11-25 and column 1, lines 64-67, see "VLR"), the location information including at least one of a private base transceiver station number, a sector number and a repeater number; a private base station controller storing location information relating to a private wireless network location of a mobile station in said visitor location register when the mobile station registers its location with said private wireless network (see column 1, lines 35-52, "BSC" and column 1, lines 64-67), and confirming a location of the mobile station and updating the location information stored in said visitor location register when the mobile

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station keeps up an idle state during a certain period (column 1, lines 35-52, see "a predetermined time period has elapsed") and (see column 4, lines 59-64).

Somani does not specifically disclose confirming a location of the mobile station by dummy paging.

Yamane teaches confirming a location of the mobile station by dummy paging (see column 3, lines 36-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Yamane into the system of Somani in order to provide a system for confirming position data of moving terminal (see Yamane, column 1, lines 45-48).

The combination of Somani and Yamane does not specifically disclose a server inquiring about the location information of the mobile station stored in said visitor location register.

Stephens teaches a server inquiring about the location information of the mobile station stored in said visitor location register (see column 13, lines 40-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Stephens into the system of Somani and Yamane in order to provide an improved wireless communications network that includes restricted user terminal areas based on the location of an originator (see Stephens, column 2, lines 52-55).

Regarding claim 9, claim 9 is rejected with a similar reason as set forth in claim 3 above.

4. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somani et al (US 6,718,173) in view of Yamane (US 5,842,131) and further in view of Fitch et al (US 6,424,840).

Regarding claim 5, the combination of Somani and Yamani teaches claim 1. The combination of Somani and Yamani does not specifically disclose the location information includes at least one of a base transceiver station number, a sector number and a repeater number.

Fitch teaches the location information includes at least one of a base transceiver station number, a sector number and a repeater number (see column 7, lines 8-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Fitch into the system of Somani and Yamane in order to express the user's location in term of network topology (see Fitch, column 7, lines 10-12).

Regarding claim 7, claim 7 is rejected with a similar reason as set forth in claim 5 above.

5. Claims 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somani et al (US 6,718,173) in view of Fitch et al (US 6,424,840) and further in view of Stephens (US 6,256,503) and Holland (US 6,321,091).

Regarding claim 10, Somani teaches a method for tracking a location of a subscriber (se Abstract), comprising: storing location information when a mobile station

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executes location registration (see column 1, lines 11-26 and column 1, lines 64-67), periodically transmitting a message requesting an inquiry about a mobile station subscriber's state to a server (see column 26, lines 22-26).

Somani does not specifically disclose the location information including a private base transceiver station number, a sector number and a repeater number with respect to the relevant mobile station.

Fitch teaches the location information including a private base transceiver station number, a sector number and a repeater number with respect to the relevant mobile station (see column 7, lines 8-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Fitch into the system of Somani in order to express the user's location in term of network topology (see Fitch, column 7, lines 10-12).

The combination of Somani and Fitch does not specifically disclose requesting a private base station controller to inquire out location information stored in a visitor location register in response to the inquiry message; transmitting location information stored in a visitor location register to a server in response to the server's request.

Stephens teaches requesting a private base station controller to inquire out location information stored in a visitor location register in response to the inquiry message; transmitting location information stored in a visitor location register to a server in response to the server's request (see column 13, lines 40-48).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Stephens into the system of Somani and Fitch in order to provide an improved wireless communications network that includes restricted user terminal areas based on the location of an originator (see Stephens, column 2, lines 52-55).

The combination of Somani, Fitch and Stephens does not specifically disclose transmitting the location information received from said private base station controller to the client; and receiving the location information from said server and providing a user with a location and state of a mobile station according to the received location information.

Holland teaches transmitting the location information received from said private base station controller to the client; and receiving the location information from said server and providing a user with a location and state of a mobile station according to the received location information (see column 4, lines 31-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Holland into the system of Somani, Fitch and Stephens in order to provide a locating system is easily transferable from one user to another user or from a first object to second object (see Holland, Abstract).

Regarding claim 12, claim 12 is rejected with a similar reason as set forth in claim 10 above.

Regarding claim 13, claim 13 is rejected with a similar reason as set forth in claim 10 above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Syed (US 6,038,451) teaches location based method of and system for forwarding wireless telephone calls.
- b. Salmela (US 6,516,193) teaches localized special services in a mobile communications system.
- c. Curry (US 6,542,497) teaches public wireless/cordless internet gateway.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

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05/27/05

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